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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/712,474	11/14/2000	Anil Raj Duggal	RD-28,259	9028

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GENERAL ELECTRIC COMPANY
GLOBAL RESEARCH CENTER
PATENT DOCKET RM. 4A59
PO BOX 8, BLDG. K-1 ROSS
NISKAYUNA, NY 12309

EXAMINER

VU, JIMMY T

ART UNIT	PAPER NUMBER
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2821

DATE MAILED: 07/18/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application N .

09/712,474

Applicant(s)

DUGGAL ET AL.

Examin r

Jimmy T Vu

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 November 2000 .
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-51 is/are pending in the application.
- 4a) Of the above claim(s) 30-45 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3, 10, 29, 46 and 51 is/are rejected.
- 7) ☒ Claim(s) 4-28 and 47-50 is/are objected to.
- 8) ☒ Claim(s) 1-51 are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____ .
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____ .

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DETAILED ACTION

Election/Restriction

1. Restriction to one of the following inventions is required under 35 U.S.C. 121:
 - I. Claims 1-29, 46-51, drawn to a light emitting device, classified in class 315, subclass 169.3.
 - II. Claims 30-45, drawn to a method of making light emitting device, classified in class 438, subclass 28.

2. The inventions are distinct, each from the other because of the following reasons:

Inventions I and II are related as process of making and product made. The inventions are distinct if either or both of the following can be shown: (1) that the process as claimed can be used to make other and materially different product or (2) that the product as claimed can be made by another and materially different process (MPEP § 806.05(f)). In the instant case the product as claimed in Group I can be made by materially different process such as oxidizing, lithographing, spraying the first conducting line or material in lieu of sputtering, etching, depositing process as defined in Group II.

3. During a telephone conversation with Mr. Toan Vo on June 27, 2002 a provisional election was made without traverse to prosecute the invention of I, claims 1-29 and 46-51.

Affirmation of this election must be made by applicant in replying to this Office action. Claims

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30-45 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

4. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(I).

Information Disclosure Statement

5. The references listed on the information disclosure statement submitted on 10/19/2000 have been considered.

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by Hochstein (U.S. Patent number 5,661,645).

Regarding claim 1, Hochstein discloses a light emitting device comprising:

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a plurality of organic light emitting diode (OLED) modules (14) (Fig. 5, col. 5, line 6)
electrically connected in series; and

an alternating current (AC) power source (Fig. 5, col. 5, lines 10-15) electrically
connected to and providing an AC voltage to the plurality of OLED modules (Fig. 5).

8. Claim 46 is rejected under 35 U.S.C. 102(b) as being anticipated by Okuda (U.S. Patent number 5,828,181).

Regarding claim 46, Okuda discloses a display comprising a plurality of organic light emitting diode (OLED) modules arranged to spell out at least one letter or depict an image (Fig 9, col. 2, lines 1-45).

Claim Rejections - 35 USC § 103

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. Claims 2-3, 10, 29 and 51 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hochstein (U.S. Patent number 5,661,645) in view of Okuda (U.S. Patent number 5,828,181).

Regarding claim 2, Hochstein discloses a light emitting device comprising a plurality of organic light emitting diode (OLED) modules (14) (Fig. 5, col. 5, line 6) electrically connected in

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series, wherein the OLED modules emit light upon application of an AC voltage. Hochstein does not show a substrate. However, as evidenced by Matthies, providing a substrate (105) (Fig. 6, col. 1, lines 24-33) is well known in the art. Therefore, it would have been obvious to an ordinary skill in the art at the time of the invention was made to provide the device of Hochstein with the substrate as taught by Matthies in order to create the lighting system for processing the display device.

Regarding claim 3, Hochstein discloses the light emitting device comprising: at least one first conducting line provided on the substrate which electrically connected to a first end of each OLED series group; and a second conducting line provided on the substrate which electrically connected to a second end of each OLED series group opposite the first end (Fig. 5).

Regarding claim 10, Hochstein discloses the light emitting device further comprising an alternating current (AC) power source (Fig. 5) electrically connected to and providing an AC voltage to the first and second conducting lines.

Regarding claims 29 and 51, the method steps are necessitated by the device structure as it is disclosed by Hochstein in view of Okuda.

Allowable Subject Matter

11. Claims 4-28 and 47-50 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

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None of the prior art teaches the converting circuit that converts an applied AC voltage with the sinusoidal waveform to the converted voltage waveform and applies the converted voltage waveform to the at least one first and the second conducting lines, and each OLED modules has a shape of a letter or image.

Conclusion

12. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Ovshinsky et al. and Matthies et al. disclosed related art.

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jimmy Vu whose telephone number is (703) 306-5451. The examiner can normally be reached on Monday to Friday from 9:00am to 6:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Don Wong, can be reached on (703) 308-4856. The fax phone number for the organization where this application or proceeding is assigned is (703) 308-7722 or (703) 308-7724.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology Center receptionist whose telephone number is (703) 308-0956.

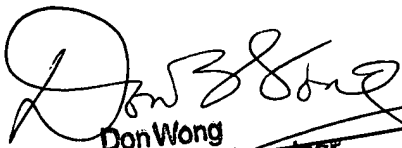
Jimmy Vu

June 14, 2002

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Don Wong
Supervisory Patent Examiner
Technology Center 2800